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PRINCIPAL INVESTIGATOR: Ruth McCorkle, Ph.D.

CONTRACTING ORGANIZATION: Yale University
New Haven, Connecticut 06520-8047

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Table 1: 2003-2004 Cancer Seminars Related to Breast Cancer

Table 2: Pre and Post-Doctoral Trainees by Years of Appointment and Research

INTRODUCTION

The purpose of this predoctoral and postdoctoral training program is to prepare clinical researchers who will impact the care of women with breast cancer or women who are at risk for breast cancer. The predoctoral program prepares the beginning researcher with the knowledge and skills necessary to develop and test clinical interventions. This program builds on the Yale School of Nursing's current doctoral program and other related programs throughout the School of Medicine, including Epidemiology and Public Health. Postdoctoral training prepares the investigator to conduct more complex studies that involve an interdisciplinary perspective and more sophisticated analytic techniques.

The research-training program has completed its fourth year and we have received a one year no-cost extension to support our remaining trainees. The two program directors, Drs. Ruth McCorkle and Michael DiGiovanna, met quarterly with their administrative team, which includes three additional researchers in breast cancer: Drs. Tish Knobf, Beth Jones, and Elizabeth Bradley. Dr. Knobf is a tenured Associate Professor at the Yale School of Nursing and has developed a program of research related to chemotherapy induced menopause. Dr. Jones is an Associate Professor in the Yale School of Epidemiology and Public Health and her research is related to factors associated with the incidence of breast cancer in black and white women. Dr. Elizabeth Bradley, an Associate Professor in the School of Public Health, has developed a program of research related to End-of Life care with cancer patients. Dr. Nora Groce, Associate Professor of Anthropology, was also added to our core faculty to work directly with one of our pre-doctoral trainees and she attended our spring meeting with the administrative team. All of the tasks of the program have been completed and will remain in place during the no cost extension.

BODY

Task 1: Completed.

Potential applicants for the research training program were identified and recruited. Breast cancer activities and training activities were developed and implemented.

Task 2: Completed.

All related courses previously developed were offered during the academic year and graduate students in other disciplines enrolled. Extensive research training experiences in breast cancer have been implemented with the program faculty, including Drs. McCorkle, DiGovanna, Knobf, Jones, Bradley, Lannin and Groce. Assignments are based on interest of the trainee and match with the mentor's program of research. The predoctoral trainees, Yiyuan Sun and Shan Liu, work directly with Drs. McCorkle, Knobf, and Groce. Both pre-doctoral trainees are actively involved with their dissertation research. Dr. Kenefick works directly with Drs. McCorkle, Knobf, Jones, and DiGovanna and finished the training program early because she received her own DOD funding for her research. Dr. LaCoursiere works directly with Drs. Knobf, McCorkle, Jones, and DiGovanna. Dr. Regina Cunningham works directly with Drs. McCorkle, Knobf, and DiGovanna.

Task 3: Completed.

A post-doctoral program related to breast cancer research was developed and implemented. The program was built on the well established doctoral program in nursing at the Yale School of

Nursing. All trainees were required to develop and implement a research proposal as part of their training and disseminate their findings in the literature and national meetings.

Task 4: Completed.

A formalized program of recruitment was established for both pre and post doctoral applicants who were nurses and non-nurses. One post-doctoral trainee, Dr. Dena Schulman-Green is a gerontologist and continues to work with us as a research scientist. Efforts were made to bring established researchers from other fields into breast cancer research and to recruit minorities. Dr. Donna Clemmens, a national leader in adolescent health, is now studying adolescents whose mothers have developed breast cancer. Ms. Emily Haozous is a Native American studying pain in Native American women with breast cancer.

Task 5: Completed.

A formalized system to select and monitor trainees continues. Drs. McCorkle and Knopf meet monthly to review the trainees' progress. Trainees were matched with research mentors based on their interests and mentors' program of research. Trainees meet weekly with their mentors and participate in their research activities while concurrently developing their own research proposals. Trainees submit their goals annually and they are peer reviewed as part of the reappointment process. This process has been extremely helpful and facilitated trainee's success in the program.

Task 6: Completed.

There have been a number of activities that the faculty and trainees have participated in that were initially established as a part of the Yale Cancer Center. These have included monthly grand rounds that are co-sponsored by this training program, and monthly meetings of the Breast Cancer Group, under Dr. DiGiovanna's leadership. See Table 1 for a list of these seminars for the 2003-2004 academic years. The trainees have also participated in monthly meetings of the pre and postdoctoral trainees in the School of Nursing. Although the focus of this latter group is not solely on breast cancer, all of the participants are studying vulnerable populations with other chronic diseases and their discussions relate to methodological and analytical issues are relevant. As part of the training program, several nationally recognized researchers were asked to present their research at the Yale Cancer Center Grand Rounds. These included: Dr. Barbara Cochran, Research Scientist at the University of Washington; Dr. Tim Ahels, Associate Professor, Dartmouth University and Dr. Ian Tannock, Professor, Ontario Cancer Institute. Dr. Cochran's talk entitled "Data of Safety Monitoring" was related to the measurement of cognitive functioning in women receiving breast cancer treatment and Dr. Tannock's talk was on the Influence of Cancer Treatment on Quality of Life in Patients with Cancer.

Individual and informal gatherings were held with these researchers during their visits. Journal club meetings were held with all visiting professors. Dr. McCorkle and two of the trainees attending the 1st American Psychosocial Oncology Society meeting in Orlando, Florida in January, 2004. Dr. McCorkle is on the Board of Directors, the Planning Committee, and moderated a session. In addition, Dr Knopf and the pre and post-doctoral trainees attended the national Oncology Nursing Society meeting in San Diego in April, 2004. Three of the trainees presented posters at the meeting.

Task 7: Completed.

We have been successful in recruiting one new pre-doctoral and one postdoctoral trainee each year. Table 2 lists the trainees by years of appointment. Of the current post-doctoral trainees, Dr. LaCoursiere will complete her first year and continue for a second year. Dr. Cunningham will complete her first year the end of October and terminate at that time and is being reviewed for a faculty position. For the pre-doctoral trainees, Ms. Sun completed her second year on June 30th and Ms. Liu will be appointed for a second year. Ms. Emily Haozous will be appointed as a new trainee for one year. She is a Native American studying Native Americans experiencing cancer pain.

The activities of the current two predoctoral and postdoctoral trainees are presented.

Predoctoral Trainees

Yiyuan Sun (Appointed July 1, 2002-June 30, 2004, 2nd year trainee). As a third year, full time doctoral student, Ms. Yiyuan Sun was selected from among three applicants for her initial appointment to the DOD training program. Ms. Sun has completed the required course work and defended her dissertation proposal, entitled "Disclosure of Breast Symptoms by Chinese Women in the United States" in June, 2004. Dr. Tish Knobf is the chair of her dissertation committee, with Drs. McCorkle and Groce serving as faculty members of the committee. Two nationally recognized researchers in qualitative methods and primary care respectively, Drs. Kathleen Knafl and Ivy Alexander, are readers on the committee. Ms. Sun met weekly with Dr. Knobf and Dr. McCorkle and communicated with other team members regularly. Ms. Sun has submitted a grant to the Oncology Nursing Society to secure funding to complete her study.

Key Accomplishments of Ms. Sun

- As part of the training program. Ms. Sun has completed the following courses this past academic year:

Fall 2003

NURS 991 Dissertation Advisement

PSYC 733 Research Topics on the Self & Stigma

Spring 2004

NURS 991 Dissertation Advisement

PSYC 733 Research Topics on the Self & Stigma

Summer 2004

NURS 991 Dissertation Advisement

Ms. Sun completed data analysis and prepared results for a research study on quality of life and symptom distress among women with breast cancer undergoing adjuvant therapy, for which two manuscripts are currently in preparation. Ms. Sun volunteered at the Chinese Unit at American Cancer Society (Flushing, New York City) to assist in research and activities of breast cancer support group. Ms. Sun worked as an intern at the Center for Immigrant Health at New York University School of Medicine to assist in cancer research and outreach to Chinese community in

Manhattan. Ms. Sun attended the bimonthly pre- and post-doctoral meetings and attended the monthly qualitative research study group at Yale School of Nursing. Also, Ms. Sun attended Yale Cancer Center Grand Rounds regularly.

Reportable Outcomes of Ms. Sun

Manuscripts in review:

- Knobf, M, T., & Sune, Y. (under review). Symptoms associated with primary radiotherapy for breast cancer. *Cancer Nursing*.

Presentations:

- Symptom Disclosure by Women with Breast Symptom(s). ONS Research Short Course, April, 2003, 28th Annual ONS Congress, Denver, CO.

Grants Awarded:

- ONS Research Short Course Award to attend the annual congress and pre-congress workshop, funded by NCI, 2003.

Grant Proposals Submitted:

- Submitted to Sociologist for Women in the Society (SWS) Barbara Rosenblum Scholarship for the Study of Women and Cancer, 04, 2004
- Submitted to the ONS Small Research Grant second call, July, 2004

Dissertation Proposal:

Disclosure of Breast Symptoms by Chinese Women in the United States: The purpose of this study is to understand how Chinese women in the U.S. decide to disclose their breast symptoms to a health care provider and/or lay people. The specific aims of this proposal are to: (1) describe how Chinese women perceive and interpret their symptoms; (2) identify factors influencing Chinese women's decisions about disclosing the self-discovered breast symptom; and (3) explore the linkages among and meanings of these factors.

Early detection and treatment are important strategies that can reduce the chance that a woman will die from breast cancer. However, early detection and treatment are contingent on the willingness of a woman taking her first step to seek care. Although most of the women with breast cancer seek care in time, at least one third of women wait to see the doctor for 3 months or more. Women who delay seeking care are more likely to be diagnosed with later staged breast cancer, increased tumor size and more positive nodes, all of which are associated with significantly lower 5-year survival rates and poorer quality of life.

Breast cancer is the most common form of cancer and second in cancer deaths among Chinese American women. The incidence of breast cancer in Chinese women is increasing worldwide and their risk of breast cancer increases after immigrating to the United States. Although the annual incidence rate of breast cancer in Chinese Americans (55 per 100,000) is significantly lower than in their Caucasian counterparts (111.8 per 100,000), their survival rates are not better, and the annual increase of the incidence rates is 3 times higher than in Caucasians. Chinese American women are 40% more likely to have a tumor size larger than 1 cm compared to Caucasian women. Although we do not know exactly why these differences exist, Chinese women experience unique cultural, socioeconomic, and systematic barriers related to access to and utilization of health services in the United States.

Given the fact that little is known about how Chinese women decide to disclose their breast symptom, the proposed study will use a generic qualitative design. Purposive and snow ball sampling method will be used to recruit participants. Potential eligible participants will be recruited from Chinese Unit at American Cancer Society (Flushing, New York), Chinese

Community at Manhattan, New York, Chinese church in New Haven, and by flyers posted at web site of Association of Chinese Students and Scholars at Yale (ACSSY) and Chinese grocery stores and restaurant at New Haven and Milford (CT).

A semi-structured in-depth interview will be scheduled at a time and place convenient for the participants although participants will be encouraged to call if they have additional information to share. Each interview will be tape-recorded and last 40-60 minutes. Constant comparison method will be use to analyze the data by the trainee, a research assistant and the mentor separately. A selected group of participants will be asked to review the study results for validation.

The findings of this study will help health providers understand Chinese women's responses to their breast symptoms and prepare health providers to assist Chinese women in making timely decisions of disclosing breast symptoms. The knowledge of symptom disclosure will not only extend the theoretical base of nursing through empirical investigation, but also provide insight and new direction for clinical practice and cancer control in breast cancer research.

Shan Liu (Appointed September 1, 2003–August 31, 2005, 1st year trainee). Ms. Shan Liu was selected among three applicants who applied to the program. She has a strong background in oncology nursing and completed her Master's thesis with patients' with nasopharyngeal cancers in China. In this study, she was particularly interested in the ways cancer treatments affect patients' abilities to take care of themselves and function. She is working directly with Drs. McCorkle and Jones. Ms. Liu attended the Cancer Center Conferences and the pre and post doctoral seminars. She is beginning her second year of coursework.

Key Accomplishments of Ms. Liu

- As part of this training program, Ms. Liu has completed the following courses this past academic year:

Fall 2003

901a Methods for Nursing Research
911a Doctoral Research Practicum I
913a Conceptual Basis for Nursing Science
943a Conceptual Basis of Self and Family Management
529a Statistics for Clinical Nursing Research

Spring 2004

911b Doctoral Research Practicum I
917b Advanced Statistics for Clinical Nursing Research
943b Methodological Issues in the Study of Management of Health and Illness
803b Oncology Symptom Management
733b Living with Dying
585b Health Sector Reform in Middle and Low Income Country

Reportable Outcomes of Ms. Sun

Submitted Publication:

- Liu, S., & He, G. (under review). Quality of life and coping styles in Chinese NPC patients after hospitalization (Master's Thesis). *Cancer Nursing*.

Postdoctoral Trainees

Dr. Sheryl LaCoursiere (Appointed September 1, 2003-August 31, 2005, 1st year trainee).

Dr. LaCoursiere received her PhD from the University of Connecticut in May 2003. Her program of research focuses on outcomes related to the provision of Internet-based support for women with breast cancer.

Key Accomplishments of Dr. LaCoursiere

- Dr. LaCoursiere completed a secondary analysis of the Attitudes Toward Online Health Care (ATOHC) survey in 45 persons who listed cancer as a primary or secondary diagnosis in a previous instrument development study of persons who used the Internet ($n=265$). A manuscript of the analysis is in preparation for submission to *Oncology Nursing Forum*.
- Dr. LaCoursiere is a co-investigator with Dr. Tish Knobf in the study *Breast Cancer Survivorship Rehabilitation: Development of an Educational Support Nursing Intervention*. The major goal of this project is to develop an educational-support intervention to improve adaptation and promote self care for survivors with breast cancer after therapy. Data collection instruments and procedures have been finalized and the Human Subjects application submitted.
- Dr. LaCoursiere has begun an ongoing collaboration with Dr. Cynthia Brandt and Dr. Prakash Nadkarni in the Yale Center for Medical Informatics, which has focused on the integration of breast cancer and informatics.
- Attendance at Yale School of Medicine Postdoctoral Network meetings: (1) Seminar on "Data handling and authorship issues," presented by Dr. Lawrence Cohen and Merle Waxman, Associate Dean of Academic Development, Yale School of Medicine; (2) Two networking receptions
- Attendance and participation at the biweekly pre-and-post doctoral meetings at Yale School of Nursing, led by Dr. Ruth McCorkle
- Attendance and participation at monthly post doctoral meetings at Yale School of Nursing, led by Dr. Margaret Grey, Associate Dean for Research Affairs
- Attendance and participation at the Center for Excellence in Chronic Illness Care Journal Club Seminars

Reportable Outcomes of Dr. LaCoursiere

Publications:

- LaCoursiere, S. P. (2003). Research methodology for the Internet: External validity (generalizability). *ANS Advances in Nursing Science*, 26(4), 257-273.
- Anderson, E., McDonald, D. D., Mikky, I., Brewer, T., Kosciwewski, C., LaCoursiere, S., Andrews, L., & Delaney, C. (2003). Health care implications and space allocation of research published in nursing journals. *Nursing Outlook*, 51(2), 70-83.

Publications in press:

- LaCoursiere, S. P., & Sarkar, M. (2004). Communication and information needs and barriers: An international collaboration model. *Medinfo*.
- LaCoursiere, S. P. (2004). *Telehealth support in cardiovascular disease: Dissertation and executive summary*. Agency for Health Care Research and Quality/National Technical Information Service.

Manuscripts in preparation:

- LaCoursiere, S. P, Knobf, M. T., & McCorkle, R. Factors influencing cancer patients' beliefs about the Internet: An analysis of responses to the Attitude toward Online Health Care (ATOHC) scale. *Cancer Nursing*.
- LaCoursiere, S. P, Knobf, M. T., Cunningham, R., Erdos, D., Cappiello, M. & McCorkle, R. Internet-based interventions in breast cancer patients: A review of the literature. *Oncology Nursing Forum*.
- LaCoursiere, S. P., & Tarakeshwar, N. Psychological interventions used with breast cancer patients: A meta-analysis. *Psycho-Oncology*.
- Tarakeshwar, N., & LaCoursiere, S. P. A Meta-synthesis of psychological interventions used in breast cancer patients. *Journal of Psychosocial Oncology*.
- LaCoursiere, S. P. Internet-based intervention for persons with cardiovascular disease: An analysis of outcomes. *Nursing Research*.

Courses Taken

- GHD 554 International Health Promotion and Communication: Theory and Application. This is a required course in the Global Health major at the Yale School of Public Health. This course was by Dr. Gregory Payne, Professor at Emerson College and Tufts Medical School, who is on the Editorial Board of the journal *Health Communication*. In this course Dr. LaCoursiere was exposed to theories of verbal and written communication, and strategies for effective communication in health promotion. She also networked with a number of physicians who had organized health promotion campaigns, and participated in a group team related to crisis communication.

National Meetings, Presentations, and Networking:

- Dr. LaCoursiere presented her dissertation research at the Eastern Nursing Research Society 16th Annual Scientific Sessions, where she had the opportunity to network with experts in oncology nursing, including Dr. Susan Bauer-Wu, Director, Phyllis Cantor Center, Dana-Farber Cancer Institute, and Dr. Hung-Ru Lin, Head of Research and Development, National Taipei College of Nursing, Taiwan. She was also invited to participate in the Dana-Farber Harvard Cancer Center Cancer Nursing Research – Program in Development.
- LaCoursiere, S. P. (2004). TELECARES-NI: TELEhealth CARDiac Education and Support by Nursing Intervention. Poster Presentation at the Eastern Nursing Research Society 16th Annual Scientific Sessions, Quincy, MA, April 1-3, 2004

Grant Proposals Submitted:

Dr. LaCoursiere has submitted 3 grant proposals, with all studies focusing on Internet-based intervention in women with breast cancer:

- Medical Library Association, Lindberg Research Fellowship Award, \$25,000, *Telehealth Support in Breast Cancer*. This grant focused on provision of Internet-based librarian support to women with breast cancer, in collaboration with the Yale University School of Medicine Harvey Cushing/John Hay Whitney Medical Library (not funded)
- NIH Loan Repayment Program, 2 years of loan forgiveness, *Telehealth Support in Breast Cancer*. This competitive program requires Dr. LaCoursiere to commit to a minimum of 20 hours per week of clinical research for the next 2 years, focusing on provision of Internet-based psychological support to breast cancer patients (recommended for funding)
- DOD Breast Cancer Research Program, Multidisciplinary Postdoctoral Award, *Telehealth Support in Breast Cancer*, \$374,900. The 3-year award would build on Dr. LaCoursiere's current fellowship under the DOD Institutional Training Grant in the Breast Cancer Research

program under Dr. Ruth McCorkle, and allow her advanced training in the disciplines of Nursing, Informatics, and Public Health. Dr. McCorkle would be Dr. LaCoursiere's primary mentor. Secondary mentors would be Susan Mayne, PhD, FACE, Associate Director for Cancer Prevention and Control, Yale Cancer Center, and Associate Professor Department of Epidemiology and Public Health, Yale University School of Medicine, and Cynthia Brandt, MD, Assistant Professor, Yale Center for Medical Informatics. Collaborators would be M. Tish Knobf, PhD, RN, American Cancer Society Professor and Director of the Oncology Nurse Practitioner Program, Yale School of Nursing; Prakash Nadkarni, MD, Associate Professor, Yale Center for Medical Informatics; Nalini Tarakeshwar, PhD, Psychologist, Department of Psychiatry, Yale School of Medicine. Consultants would be Kate Lorig, Director, Stanford University Patient Education research Center, and Jyotsna Changrani, Assistant Director, Center for Immigrant Health, New York University School of Medicine. The award proposes the development of a team to offer Internet-based psychological and information support to women with breast cancer for one year, and compare outcomes to with women who receive usual care (pending)

Professional Activities

- Dr. LaCoursiere was invited to discuss her journal article on Internet-based research and external validity in the Yale School of Nursing Doctor of Nursing Science Class N905, *Creating Method: Issues in Nursing Research*, March 2004.
- Selected as Web Site Advisory Board Member, American Nurses' Association- American Nurses' Credentialing Center (ANCC)
- Reviewed 4 manuscripts for *Computers, Informatics, Nursing* journal
- Reviewed 10 abstracts for the Eastern Nursing Research Society 16h Annual Scientific Sessions, Quincy, MA, held April 1-3, 2004
- Reviewed 5 papers for 11th World Congress on Medical Informatics, San Francisco, CA, to be held September 7-11, 2004
- Reviewed 6 abstracts for the NIH National State of the Science Congress in Nursing Research, Washington, DC., to be held October 7-8, 2004
- Invited presentation on Internet-based research and external validity
Yale Doctor of Nursing Science Program, Nursing N905 course, *Creating Method: Issues in Nursing Research*, March 4, 2004

Dr. Regina S. Cunningham (Appointed November 1, 2003–October 21, 2004, 1st year trainee). Dr. Cunningham received her PhD from the University of Pennsylvania School of Nursing in June, 2003. Her program of research focuses on clinical outcomes in patients receiving cancer treatment. She is particularly interested in how the work of Oncology Advanced Practice Nurses influences outcomes in patients with hormone dependent malignancies, specifically breast and prostate cancer. Dr. Cunningham will limit her training to one year and has applied for a research faculty position at her institution to begin in January, 2005.

Key Accomplishments of Dr. Cunningham

- Based on data observations made while completing her dissertation, Dr. Cunningham is conducting a secondary analysis examining depression findings from Dr. McCorkle's study of APN outcomes in men who have undergone radical prostatectomy. Data from both experimental and control groups have been obtained and examined. Dr. Cunningham is preparing a manuscript outlining the findings of this work; this manuscript is planned for submission to *Oncology Nursing Forum*.

- Dr. Cunningham has initiated collaborations with Dr. Joanne Robinson (Rutgers College of Nursing) to examine items of the Male-Urinary Distress Instrument that relate to pain. Dr. Cunningham used this instrument as one of the measures in her dissertation research and was interested in further describing the pain experience as it relates to bladder spasms. Dr. Robinson's research focuses on issues of continence. She has been a co-investigator with Dr. McCorkle.
- Dr. Cunningham has completed a literature review and synthesis examining outcomes in patients with early stage breast cancer who have completed treatment. This review examines data based publications only and was conducted to determine gaps in the outcomes research literature and review evidence on psychoeducational interventions in this population.
- Dr. Cunningham is co-investigator with Dr. Tish Knobf in the study *Breast Cancer Survivorship Rehabilitation: Development of an Educational Support Nursing Intervention*. The major goal of this project is to develop an educational-support intervention to improve adaptation and promote self-care for survivors with breast cancer after therapy. Data collection instruments and procedures have been finalized and the Human Subjects application submitted. This study will be conducted at two sites. Dr. Cunningham will facilitate the study implementation at The Cancer Institute of New Jersey.
- Dr. Cunningham has established collaborations with Dr. Benjamin Crabtree and others at the Robert Wood Johnson School of Medicine where she is applying for a faculty position (Assistant Professor level). Dr. Crabtree is a senior investigator; Dr. Cunningham will serve as a co-investigator on a study assessing cancer screening outcomes. A grant has been submitted to fund this work.
- Dr. Cunningham is attending and participating in the biweekly pre- and post-doctoral meetings at Yale School of Nursing, led by Dr. Ruth McCorkle.
- Dr. Cunningham is attending and participating in the Center for Excellence in Chronic Illness Care Journal Club Seminars.

Reportable Outcomes of Dr. Cunningham

Articles:

- Cunningham, R. S. (2003). Anemia in the oncology patient: Cognitive function and cancer. *Cancer Nursing*, 26(6S) Supplement, 38-45.
- Cunningham, R. S. (2004). Advanced practice nursing outcomes: A review of selected empirical literature. *Oncology Nursing Forum*, 31, 219-232.
- Ottery, F. D., Kasenic, S. R., & Cunningham, R. S. (2004). Multimodality approaches to optimize survivorship outcomes: Body composition, exercise, and nutrition. *Issues in Nutrition and Cancer: Update 2004*, March/April, 11-14.
- Rittenberg, C. N., & Cunningham, R. S. (in press). Chemotherapy induced nausea and vomiting. *Clinical Journal of Oncology Nursing*.
- Cunningham, R. S. (in press). Using clinical practice guidelines to improve clinical outcomes in patients receiving emetogenic chemotherapy. *Oncology Supportive Care Quarterly*.

Abstracts:

- Cunningham, R. S., Eisenberg, P., Johnson, J. B., Rittenberg, C. N., & Macciocchi, A. (2004). Palonosetron is more effective than Ondansetron or Dolasetron in reducing the impact of chemotherapy induced nausea and vomiting on daily life activities. *Supportive Care in Cancer*, 12, 370.

- Much, J. K., & Cunningham, R. S. (2004). Process and outcome: Utilization of statement on the scope and standards of advanced practice nursing in oncology (3rd edition) for competency based job descriptions, orientation, and evaluation of advanced practice nurses (APNs). *Oncology Nursing Forum*, 31(2), 439-440.
- Cunningham, R. S. Clinical practice guideline use by advanced practice nurses: An evaluation of consistency and outcome. State of the Science in Nursing Research Conference, Washington, DC, October 7-9, 2004.

Book Chapters:

- Cunningham, R. S. (2004). The Anorexia-Cachexia Syndrome. In C. H. Yarbro, M. H. Frogge, & M. Goodman (Eds.), *Cancer Symptom Management* (pp. 137-167). Sudbury, MA: Jones and Bartlett Publishers.
- Cunningham, R. S., & Huhmann, M. B. (in press). Nutritional disturbances. In C. H. Yarbro, M. H. Frogge, & M. Goodman (Eds.), *Cancer Nursing* (6th ed). Sudbury, MA: Jones and Bartlett Publishers.

Manuscripts in preparation:

- Cunningham, R. S. Guideline use by advanced practice nurses. This manuscript reports the primary findings of Dr. Cunningham's doctoral dissertation. This manuscript was completed and submitted (but not accepted) to the *Journal of Nursing Scholarship*. It is currently under revision for resubmission to another journal.
- Cunningham, R. S., & McCorkle, R. Depression following radical prostatectomy: A role for advanced practice nurses. *Oncology Nursing Forum*.
- LaCoursiere, S. P., Knobf, M. T., Cunningham, R. S., Erdos, D., Cappiello, M., & McCorkle, R. Internet-based interventions in breast cancer patients: A review of the literature. *Oncology Nursing Forum*.
- Cunningham, R., Robinson, J., & McCorkle, R. Pain and bladder spasms following radical prostatectomy. *Cancer Nursing*.
- Cunningham R. S. Clinical outcomes in women after treatment for early stage breast cancer: A review of selected empirical literature. *Oncology Nursing Forum*.
- McCorkle, R. & Cunningham, R. S. Oncology advanced practice nursing: (manuscript in idea stage of development). *Oncology Nursing Forum*.

Invited Speaker:

- Cunningham, R. S. (2004). Chair, ONS Satellite Symposium – New Advances in Chemotherapeutic and Supportive Care Agents for the Management of Breast Cancer Patients. Anaheim, California.
- Cunningham, R. S. (2004). Managing Symptoms in Patients Receiving Cancer Treatment: A review of empirical evidence. Osaka Prefecture College of Nursing, Osaka, Japan.
- Cunningham, R. S. (2004). Identifying Cancer Related Weight Loss: The Importance of Timely Intervention in Improving Outcomes. Multinational Association for Supportive Care in Cancer 16th International Symposium Miami, Florida
- Cunningham, R. S. Breast Cancer Update International Train the Trainer Program, Sydney Australia, August 7 & 8, 2004.

Key Accomplishments of Trainees who have completed the two-year Training Program

Predoctoral Trainees

Dr. Shiu-yu Lee (Appointed July 1, 2000-June 30, 2002) accepted a tenure track position as an assistant professor at National Taipei College of Nursing, Taipei Taiwan, August 2003. Dr. Lee graduated in May, 2003. Her dissertation study was entitled "Treatment Decision-Making for the Primary Treatment of Early-Stage Breast Cancer in Chinese American Women," that was under the supervision of Dr. Tish Knobf. Dr. McCorkle also served as a faculty member of the committee. Dr. Lee presented a part of her dissertation study, entitled "Decision-Making for Primary Treatment by Chinese American Women with Early-Stage Breast Cancer," at Oncology Nursing Society 29th Congress, Anaheim, California, April 2004.

This past year, Dr. Lee's primary responsibility as a nursing faculty at National Taipei College of Nursing included teaching topics related to cancer and cancer care in graduate program and BSN program, and conducting research. She has worked on a nation-wide, three-year project, entitled "Ensuring Quality Cancer Care - Integrated Project for Cancer Centers in Taiwan." This project aims to develop indicators and measures for quality cancer care for six common cancers, and assess quality of care among cancer centers in Taiwan. Dr. Lee's responsibility in this project is to work with other cancer researchers in Taiwan to develop indicators for breast cancer care from perspectives of patient communication, patient participation, treatment decision-making and patient safety. She has also submitted a prospective study to describe treatment decision-making and health-related quality of life among Taiwanese women with early-stage breast cancer. This study has been funded recently for NT 450,000 for the coming academic work by National Science Council in Taiwan. The purpose of this prospective study is to describe the decisional conflict, participation, expectation and value as the Taiwanese women make the treatment decision for their early-stage breast cancer. The women will be also followed for six months to evaluate their regret and satisfaction about the decision, and their health-related quality of life after the primary treatment for their breast cancer. This study is the first funded study in Taiwan to explore the issue of treatment decision-making in cancer care. Findings from this study will advance the knowledge about treatment decision-making in cancer care in Taiwan and facilitate cancer clinicians to help women with breast cancer to make an informed decision. Finally, she has been also been involved actively in the Taiwan Oncology Nursing Society and local breast cancer support groups to promote the care of the women with breast cancer and their family.

Pamela Potter (Appointed July 1, 2001-June 30, 2003). For her fifth year as a full time doctoral student, Pamela Potter was funded by an American Cancer Society Scholarship and a Small Grant from the Oncology Nursing Society Foundation (sponsored by Orthobiotech). Because of her two years funding on the grant, she continued to meet with the DOD pre-doc and post-doc fellows. Dr. Ruth McCorkle was Ms. Potter's academic and research advisor and dissertation chair. Dr. Potter completed her dissertation and graduated from the YSN doctoral program May, 2004.

Key Accomplishments of Ms. Potter

- As part of the training program. Ms. Potter has completed the following courses this past academic year:

Fall 2003

NURS 991 Dissertation Advisement

Spring 2004

NURS 991 Dissertation Advisement

Reportable Outcomes of Ms. Potter

Dissertation

- Potter, P. (2004) Breast Biopsy and Distress: Testing a Reiki Intervention.

Publications

- Potter, P., & Guzzetta, C. E. (2004). Holistic caring process. In B. M. Dossey, L. Keegan, & C. E. Guzzetta (Eds.), *Holistic nursing: A handbook for practice* (4th ed.). Sudbury, MA: Jones & Bartlett Publishers.

Posters

- Potter, P. (2004, April). *Recruitment issues encountered for a complementary therapy clinical trial addressing the peridiagnostic distress associated with breast biopsy*. Poster presented at the Sixteenth Annual Scientific Sessions of the Eastern Nursing Research Society, Boston, MA.

Presentations

- Presenter, "Reiki for Self-Healing," New Beginnings: Complementary Approaches to Living Well Today, National Cancer Survivors Day, Yale New Haven Medical Center, May 2004.
- Presented and Interviewed on series of four 30 minute radio programs, "Reiki and Women's Health," WMRD Radio, Middletown, CT. June to October 2003.

Grants Awarded

- The Effects of Reiki on the Psychological Distress of Women Undergoing a Biopsy. Received from the American Cancer Society. \$15,000.00 Small Grant for conducting the Breast Biopsy and Distress research study, from Oncology Nursing Foundation and Orthobiotech. \$8,500.
- Received an Award for Excellence in Holistically Oriented Student Research, Recognition of Outstanding Academic Performance, Connecticut Holistic Health Association, 2004.

Grant Proposals Submitted

- Submitted to the DOD for the BCRP2 Clinical Research Nurse Award. 06/2003 for a post doctoral study of a Reiki intervention for women newly diagnosed with breast cancer, a crossover design clinical trial pilot to specifically address immunobiological outcomes. Received an "excellent" rating but was not funded.

National Meetings and Networking

- Ms. Potter participated in Cancer Grand Rounds at YNHH with Timothy Ahles, PhD, a psychologist from Dartmouth, related to his research on cognitive changes in treatment induced menopausal women treated for breast cancer. She discussed the possibility of post-doctoral work at that institution. Ms. Potter is an active member of the Oncology Nursing Society and the Psychoneuro-immunology and Complementary Therapy Special Interest Group, and Co-Editor of the ONS PNI/CT SIG Newsletter. Ms. Potter has submitted an

• abstract to the Oncology Nursing Society to give a podium presentation at the 8th *National Conference on Cancer Nursing Research* (Florida, February 2005).

Dissertation Research

- Ms. Potter completed her dissertation data collection and analysis and successfully defended her dissertation, a clinical trial of a complementary therapy (Reiki) versus conventional care control for relieving the psychological distress experienced by women undergoing a breast biopsy. Due to institutional barriers, subject selection bias and barriers to recruitment for a complementary therapy study, the final sample was 32 women (17 randomized to Reiki treatment group, 15 randomized to conventional care group) scheduled for breast biopsy. Although women in the treatment group reported positive experiences with the Reiki, due to sample size, the data lacked sufficient power to demonstrate whether or not the Reiki treatment had any more effect than usual care on the distress outcomes. This work provided Ms. Potter with a strong foundation of experience for conducting clinical research. She graduated May 2004.

Ms. Potter has been awarded a two-year post doctoral fellowship in Biobehavioral Nursing Research at the University of Washington School of Nursing. Her research interests lie in the study of complementary therapies, specifically biofield therapies like Reiki and Qigong, for people living with cancer, in particular, breast cancer. Psychological measures alone do not seem to capture the effect of these interventions. Biological measures, possibly immune measures, in tandem with psychological measures may better reflect intervention outcomes. With this additional training Ms. Potter hopes to launch an independent research career as a nurse scientist in the field of biobehavioral research with complementary therapies for people living with breast cancer.

Postdoctoral Trainees

Dr. Donna Clemmens (Appointed October 1, 2000-September 30, 2002). Dr. Clemmens accepted a tenure track position as an Assistant Professor at New York University, New York City, January, 2003. Dr. Clemmens is nationally recognized for her work in Maternal and Child Health, and has expanded her field of study to adolescents and mothers with breast cancer. Dr. Clemmens has made contact with the NYU's Cancer Center (Kim Glassman-director) and she is in discussions regarding their support services for adolescents whose mothers have breast cancer. They have written a letter of support to be included in her grant, R03 on the topic of "Adolescent Adjustment to Maternal Breast Cancer." Dr. Clemmens has completed a manuscript on the funded ONS study-"Adolescents and mothers with breast cancer" for submission to the *Journal of Psychosocial Oncology*. She has submitted an abstract for the ONS research conference next Feb on the ONS funded study and it was accepted for presentation.

Publications for the past year-although not in the area of breast cancer

- Sadler, L., & Clemmens, D. (2004). Ambivalent grandmothers raising teen daughters and their babies. *Journal of Family Nursing*, 10(2), 211-231.
- Clemmens, D., & Hayman, L. (in press). Increasing activity to reduce obesity in adolescent girls: A research review. *JOGNN*.
- Clemmens, D., Engler, A., & Chinn, P. (in press). Learning and living health: College students' experiences with an introductory health course. *Journal of Nursing Education*.

• **Dr. Dena Schulman-Green (Appointed January 1, 2001-August, 2002).** A gerontologist specializing in end-of-life care, Dr. Schulman-Green's program of research has focused on factors affecting palliative care in breast cancer, including care trajectories, i.e. transition from curative to palliative care, patient/family decision-making; and clinicians' education, attitudes, and practice of palliative and hospice care. Since her training began, Dr. Schulman-Green has worked with Dr. McCorkle to further her research agenda. Dr. Schulman-Green has continued to work closely with Program Faculty member Dr. Elizabeth Bradley, of the Yale University School of Medicine's Department of Epidemiology and Public Health, on various research projects. She is also a member of a research team led by Dr. Sidney Bogardus, who is the Medical Director of the Adler Geriatric Assessment Center. On September 1, 2002, Dr. Schulman-Green began working with Dr. McCorkle as her project director on an R01 NIH grant testing a home care intervention with women diagnosed with ovarian cancer.

Key Accomplishments of Dr. Schulman-Green

- Recipient, 2004 Research Award, National Hospice and Palliative Care Association for presentation, "Reasons for delayed hospice enrollment as identified by primary caregivers." Presented at the Clinical Team Conference and Exposition on Hospice and Palliative Care, Las Vegas, NV, March, 2004.
- Publication of 7 research articles related to oncology and palliative care (*Journal of the American Medical Association*, *Journal of Palliative Care* (2), *Journal of Terminal Oncology*, *American Journal of Hospice and Palliative Care*, *Omega: Journal of Death and Dying*, *American Journal of Critical Care*), with one additional manuscript in preparation.
- Project Director/Co-Investigator for NIH-funded clinical trial, "Interventions to enhance quality of life outcomes in ovarian cancer."
- Principal Investigator of pilot study, "Women's role in the management of advanced breast cancer." Data collection ongoing.
- Completion of quantitative and qualitative evaluation and report on the Palliative Care Services at Yale-New Haven Hospital commissioned by the Yale Cancer Center, with 2 presentations given and 2 manuscripts in preparation.
- Completion of pilot study (Co-Investigator) testing a goal setting instrument in the cancer population and PI of clinical trial of the instrument, with two manuscripts submitted (*Journal of General Internal Medicine*, *The Gerontologist*).
- Completion of study on delayed hospice referral (Co-Investigator), with 1 manuscript submitted (*Journal of Palliative Medicine*, and 1 in press (*Journal of Palliative Care*)).
- Completion of study on nurses' communication of prognosis and implications for hospice referral, with 1 manuscript published (*American Journal of Hospice and Palliative Care*).
- Completion of 10 presentations primarily related to oncology and palliative care at professional conferences, 2 presentations at the Yale Program on Aging, and 1 presentation at the Yale Cancer Center Prevention and Control Conference.
- Completion of Course, "Epidemiology of Cancer," Yale School of Medicine, Dept. of Epidemiology and Public Health.
- Attendance at meetings of the Palliative Care Resource Group at Yale-New Haven Hospital, and of the Palliative Care in the ICU Group.
- Attendance at rounds of the Yale Cancer Center and Yale Medical Grand Rounds.
- Attendance at meetings of the Yale Program on Aging Seminars.

- Networking with professionals and organizations involved in breast cancer treatment, palliative care, oncology, and aging at formal events and informal meetings.
- Attendance at 3 seminars on grant-writing, offered by the Yale School of Nursing, Yale School of Medicine, and the Association for Gerontology in Higher Education.
- Attendance at monthly post-doctoral meetings and bimonthly pre- and post-doctoral meetings.

Reportable Outcomes of Dr. Schulman-Green

Publications

- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R., & Bradley, E. (in press). Nurse's communication of prognosis and implications for hospice referral: A study of nurses caring for terminally ill hospitalized patients. *American Journal of Critical Care*.
- Cherlin, E., Schulman-Green, D., McCorkle, R., Johnson-Hurzeler, R., & Bradley, E. (2004). Family perceptions of clinicians' outstanding practices in end-of-life care. *Journal of Palliative Care*, 20(2), 113-116.
- Schulman-Green, D. (2003). Coping mechanisms of physicians who routinely work with dying patients. *Omega: Journal of Death and Dying*, 47(3), 253-264.
- Schulman-Green, D. (2003). How do physicians learn to provide palliative care? *Journal of Palliative Care*, 19(4), 246-252.
- Schulman-Green, D. (2002). Physicians' feelings about themselves and their patients. *Journal of the American Medical Association*, 278(9), 1114.
- Schulman-Green, D. (2002). Psychosocial issues in palliative care: Physicians' self-perceived role and collaboration with hospital staff. *Journal of Terminal Oncology*, 1(1), 1-7.
- Bruce, E. & Schulman-Green, D. (2002). Planning for the future of long-term care in Massachusetts. *Southwest Journal of Aging*, 18(1), 17-20.
- Schulman-Green, D. (2002). Psychosocial issues in palliative care: Physicians' self-perceived role and collaboration with hospital staff. *American Journal of Hospice and Palliative Care*, 20(4), 34-40.
- Schulman-Green, D. (1999). Deceiving appearances: Communicating with the facially inexpressive older adult. *Journal of Gerontological Nursing*, 25(1), 40-43.

Manuscripts in review

- Schulman-Green, D., Naik, A. D., McCorkle, R., Bradley, E. H., & Bogardus, S. T. What factors influence goal setting between older adults and their clinicians? *The Gerontologist*.
- Naik, A. D., Schulman-Green, D., McCorkle, R., Bradley, E. H., & Bogardus, S. T. Will older persons and their clinicians use a shared decision making instrument? *Journal of General Internal Medicine*.
- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R., & Bradley, E. Reasons for delayed hospice enrollment as identified by primary caregivers. *Social Science and Medicine*.
- Kenefick, A. L., & Schulman-Green, D. Caring about pain in cognitively impaired nursing home residents. *International Journal for Human Caring*.

Manuscripts in preparation

- Schulman-Green, D., & McCorkle, R. An expansion of Institute of Medicine (IOM) barriers to excellent palliative care: Reports of palliative and non-palliative physicians. *Journal of Palliative Medicine*.

- Schulman-Green, D., Harris, D., Xue, Y., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Working with patients in pain: The role of unlicensed staff on an inpatient oncology unit.
- Xue, Y., Schulman-Green, D., Harris, D., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Pain knowledge and attitudes of healthcare providers on an oncology unit.
- Keneflick, A. L. & Schulman-Green, D. The model of sequential trials: Managing pain in the context of cognitive impairment. *Research in Nursing and Health*.

National Meetings, Presentations, and Networking

Dr. Schulman-Green has attended/presented at the following national meetings where she has had the opportunity to network with experts in end-of-life care.

- Schulman-Green, D., Naik, A.D., McCorkle, R., Bradley, E.H., & Bogardus, S.T. What hinders shared goal setting between older adults and their clinicians? Presented at the 2004 Annual Meeting of the American Geriatrics Society, Las Vegas, NV, May 2004.
- Naik, A.D., Schulman-Green, D., McCorkle, R., Bradley, E.H., & Bogardus, S.T. Development, Refinement, and Responses to a Shared Decision Making Instrument. Presented at the 2004 Annual Meeting of the American Geriatrics Society, Las Vegas, NV, May 2004.
- Xue, Y., Schulman-Green, D., Harris, D., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Pain knowledge and attitudes of healthcare providers on an oncology unit. Presented at the Annual Meeting of the Eastern Nursing Research Society, Boston, MA, April 2004.
- Harris, D., Schulman-Green, D., Xue, Y., Czaplinski, C., Donovan, C., Loseth, D., & McCorkle, R. Working with patients in pain: The role of unlicensed staff on an inpatient oncology unit. Presented at the Annual Meeting of the Eastern Nursing Research Society, Boston, MA, April 2004.
- Schulman-Green, D. & Miltiades, H. Cultural attitudes and health care practices related to illness and end-of-life care. Presented at the 30th Annual Meeting of the Association for Gerontology in Higher Education, Richmond, VA, February, 2004.
- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R. & Bradley, E.H. Reasons for delayed hospice enrollment as identified by primary caregivers. Presented at the Clinical Team Conference and Exposition on Hospice and Palliative Care, Las Vegas, NV, March, 2004.
- Naik, A.D., Schulman-Green, D., Bradley, E.H., & Bogardus, S.T. Older persons' willingness and capacity to use a goal-setting instrument. Presented at the 25th Annual Meeting of the Society for Medical Decision-Making, Chicago, IL, October, 2003.
- Schulman-Green, D. Providing palliative care to older adults: Physicians' attitudes, behavior, and education. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, February 2003.
- Miltiades, H. & Schulman-Green, D. Rooting out ageism: Instructional methodologies for the classroom. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, February 2003.
- Schulman-Green, D., McCorkle, R., Cherlin, E., Johnson-Hurzeler, R. & Bradley, E.H. Nurses' communication of prognosis and implications for hospice referral. Paper presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.

- Waters, L., Kolb, K.N., Sung, T.H., Schulman-Green, D., Fuller, J. & Lynn, J. End-of-life care in a changing world: A continuum of perspectives. Symposium presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.
- Schulman-Green, D., Waters, L., Kasl, S., Glass, T., Schaie, K.W., & O'Hanlon, A. Student Mentoring: Beyond academic advising to comprehensive guidance. Workshop presented at the 55th Annual Scientific Meeting of the Gerontological Society of America, Boston, MA, November, 2002.
- Schulman-Green, D. Providing palliative care to older adults: Physicians' attitudes, behavior, and education. Presented at the 29th Annual Meeting of the Association for Gerontology in Higher Education, St. Petersburg, FL, March, 2003.
- Schulman-Green, D. End-of-life care in medical education: How prepared are physicians to provide palliative care? Presented at the 28th Annual Meeting of the Association for Gerontology in Higher Education, Pittsburgh, PA, February, 2002.
- Schulman-Green, D., Cotter, J., Silverstein, N., & Waters, L. Teaching 101: Teaching skills for the excellent teacher or teaching assistant. Workshop coordinated for the 28th Annual Meeting of the Association for Gerontology in Higher Education, Pittsburgh, PA, February, 2002.
- Schulman-Green, D. How prepared are physicians to address psychosocial and spiritual aspects of palliative care? Presented at the 54th Annual Scientific Meeting of the Gerontological Society of America, Chicago, IL, November, 2001.
- Dr. Schulman-Green attended the Boston College End-of-Life Conference held in Boston in March 2003 as a participant.
- Attendance at the Career Development Retreat sponsored by the Research Career Development Core, Pepper Older Americans Independence Center, February 2004.
- Dr. Schulman-Green regularly attends seminars held by the Yale Program on Aging and the Yale Cancer Center, where she has developed relationships with experienced researchers in end-of-life care, including Drs. Terri Fried and Stanislav Kasl. Dr. Schulman-Green was invited to discuss her work, "Physicians' attitudes and behavior providing palliative care to older adults" at the Program on Aging in April, 2002. She was invited to present her work, "Health Professionals' Self-Reported Palliative Care Practices in Connecticut and Massachusetts" in May, 2003 at the Yale Cancer Center Prevention and Control Conference, and "The RAND Pilot Studies" in December 2003 at the Yale Program on Aging. She was also invited to teach 2 class sessions to senior nursing students on communication in palliative care at the Yale School of Nursing (Oncology Symptom Management).

Grant Activities:

Dr. Schulman-Green has had 2 grants funded, both focusing on patients with cancer who are transitioning from curative to palliative care:

- Schulman-Green, D., Principal Investigator. Women's role in the management of advanced breast cancer. Funded by the Yale University School of Nursing Center for Self-Management Interventions for Populations at Risk (NIH, P20).
- Schulman-Green, D., Principal Investigator. Women's role in the management of advanced ovarian cancer. Funded by the Yale University School of Nursing Center for Self-Management Interventions for Populations at Risk (NIH, P30).
- Application for a K award in preparation.

Dr. Amy L. Kenefick (Appointed October 1, 2002-December 31, 2003). Dr. Kenefick's interests include cognitive function and the quality of life in women with breast cancer. She is transitioning from women's health and geriatrics to breast cancer. Her first year's work included orienting herself to breast cancer, and establishing new relationships with other researchers. She has collaborated with Drs. Schulman-Green and Chen of YSN in the preparation of manuscripts related to pain and geriatric oncology. She is a co-investigator with Dr. Tish Knobf in a study of cognitive function and induced menopause related to breast cancer treatment. Dr. Kenefick and Dr. Beth Jones of Yale School of Epidemiology and Public Health have begun an ongoing collaboration with a focus on racial disparities in breast cancer. Dr. Kenefick submitted a nurse investigated proposal to the DOD in late spring, 2003 and it was approved and funded in 2004. She has assumed a faculty position at the University of Connecticut and has release time to implement her study.

Reportable Outcomes of Dr. Kenefick

Publications

- Chen, C., Kenefick, A. L., Tang, S. T., & McCorkle, R. (2003). Utilization of comprehensive geriatric assessment in cancer patients. *Critical Reviews in Hematology/Oncology*, 49, 53-67.
- Jones, B. A., Kenefick, A. L., & Zinggeler, J. M. (under review). Delay, race and stage at diagnosis in women with breast cancer. *American Journal of Public Health*.
- Kenefick, A. L., & Schulman-Green, D. (under review). Caring about pain in cognitively impaired nursing home residents. *International Journal for Human Caring*.
- Kenefick, A. L., & Schulman-Green, D. (under review). The Model of Sequential Trials: managing pain in the context of cognitive impairment. *Research in Nursing and Health*.
- Kenefick, A. L., & McCorkle, R. (in preparation). Patterns of symptom distress in elderly women with breast cancer.
- Kenefick, A. L., & Thielen, J. (in preparation). Mild cognitive dysfunction in women with breast cancer.

Ongoing Projects

- Literature review related to cognition and chemotherapy/estrogen/breast cancer/menopause.
- Secondary analysis of breast cancer data included in a larger, randomized, controlled study of advanced practice nursing intervention.

Attended

- YSN post doc meetings
- DOD pre/post doc meetings
- Chronic Illness Journal Club
- Grant Writing for New Investigators (YSN)
- Grant Writing for Experienced Investigators (YSN)
- Cancer Prevention and Control Group Seminars

Grant Funded-2004

"Relationship of Neurocognitive Function to Breast Cancer Treatment and Induced Menopause." Clinical Research Nurse Award, Department of Defense Breast Cancer Research Program, Amy L. Kenefick (PI), \$200,000. This proposal for a clinical nurse research award builds directly on the candidate's extensive clinical background in women's health and primary care by facilitating the candidate's transition from geriatric research to breast cancer research. In addition to preparing the candidate for a career in the battle against breast cancer, it will facilitate interdisciplinary collaboration between the University of Connecticut and Yale University.

While providing didactic experience in advanced research, methodology, it allows the candidate to have sustained and varied experiences in the field of breast cancer research and patient care. The training plan will promote the development of the candidate's program of research, leading to advanced skills in research design, data management and analysis, and in working with interdisciplinary research teams to improve outcomes of care for patients with breast cancer.

The area of inquiry for the research aspect of this proposal is the relationship between neurocognitive function, breast cancer chemotherapy, and menopause. A particular emphasis of the training program is on the methodology of longitudinal research, an area that was not included in the candidate's doctoral program. Longitudinal studies are clearly indicated at this point in the development of knowledge about neurocognitive function in women being treated for breast cancer. While there has been some speculation about the role of chemotherapy induced menopause in neurocognitive function, there have been no longitudinal studies with appropriate baseline and repeated measures that will provide meaningful information about neurocognitive status over time. Women, themselves, express distress over perceived neurocognitive changes yet there is little known about the subject. The research project will be valuable preparation for an independent career as a breast cancer researcher not only because it is an opportunity to become an expert in longitudinal research methods but also because it will set the stage for the development of interventions needed to support quality of life in women with breast cancer. The candidate plans to undertake future studies in which interventions are identified and tested. Identifying the contribution of induced menopause to symptom distress in women undergoing treatment will be another fruitful area of inquiry in breast cancer research. This research fits into the larger picture of the problem of adverse breast cancer treatment effects and the quality of life of patients and survivors. Clarifying the relationship of neurocognitive function to chemotherapy and induced menopause will promote the development of treatment protocols in which the probability of cure can be maximized while the extent of neurocognitive dysfunction can be minimized.

KEY ACCOMPLISHMENTS OF THE PROGRAM

The following activities were accomplished in the fourth year:

1. Met monthly with core administrative team to plan and complete the work of the training program.
2. Selected trainees for the fourth year and the carry over year based on established criteria.
3. Implemented and continued a structured process for monitoring trainees' progress.
4. Evaluated course work within the School of Nursing doctoral program that included content related to breast cancer research for doctoral students with Yale School of Nursing and other schools within the University to sustain the program.
5. Implemented a long-term plan for recruiting applicants to the doctoral program, including minorities who are committed to studying women with breast cancer
6. Implemented a postdoctoral training program within the School of Nursing and secured funding from NINR for an institutional research training program in self and family management. Recruitment efforts for this program will include applicants who are interested in studying women with breast cancer.
7. Implemented mechanisms for collaboration among program faculty and potential other research and clinical faculty within the University.

8. Identified opportunities for funding trainee's research grants and facilitated submission of their proposals to agencies and foundations.

REPORTABLE OUTCOMES OF THE PROGRAM

The following outcomes were achieved:

1. Filled our one predoctoral and one postdoctoral position yearly with competitive and qualified trainees for the entire funding period. When trainees terminated the program early due to securing their own research funding or research employment opportunities, the positions were filled with other qualified applicants.
2. In addition to the three program directors (McCorkle, Knobf, and DiGiovanni), we recruited Drs. Beth Jones, Elizabeth Bradley, Donald Lannin, and Nora Groce as core faculty in the research-training program.
3. The Connecticut State Department implemented a Cancer Planning grant funded by the Center for Disease Control. Dr. McCorkle continues to serve as a member of the Connecticut Cancer Partnership to implement the plan. The plan was developed in collaboration with the Yale Cancer Center, the University of Connecticut, the State Department of Health, the Connecticut Medical Society, and other key organizations throughout the state. Breast cancer was included as one of the major cancer sites that the state has identified to reduce the burden of cancer. Dr. Knobf was also recently appointed a member of the committee and serves as a program leader on the survivorship core. Dr. McCorkle serves as the program leader on the palliative and end of life core.
4. Dr. McCorkle serves as the co-chair of the American Cancer Society New England's Division Board Outcomes workgroup. This workgroup includes subgroups in breast cancer, quality of life, exercise and nutrition. Drs. Knobf and Jones also serve as members and key collaborators from other institutions have been identified and are receptive to future research initiatives.

CONCLUSIONS

Within the fourth year of the research-training program in breast cancer, the program directors filled their trainee positions with outstanding applicants. Over the entire training program, five predoctoral and five post-doctoral trainees have been funded and have been extremely productive. Breast cancer content has been included in the curriculum of the doctoral program and will continue to be included after the training program has ended. The postdoctoral program has been established within the School of Nursing and included in the bulletin and the School's website. Additional funding through a T32 application has been secured through June, 2008 to fund both pre and post-doctoral trainees. Faculty across disciplines are collaborating and future initiatives are planned. These activities will enhance our ability to contribute to the knowledge base related to the care of women with breast cancer or women at risk to develop breast cancer.

APPENDIX

Table 1: 2003-2004 Cancer Seminars Related to Breast Cancer

Date	Title	Speaker/Consultant
October 28, 2003	Breast Health Care Guidelines for Countries with Limited Health Care Resources	Benjamin O. Anderson, MD, FACS Associate Professor of Surgery and Clinical Medical Director, University of Washington Seattle Cancer Care Alliance
November 1, 2003	Breast Cancer: Never too Young, Never too Old	Larry Norton, MD Head of Solid Tumor Division Memorial Sloan-Kettering Cancer Center
December 9, 2003	An Exercise Intervention in Breast Cancer Survivors	Melinda L. Irwin, PhD, MPH Assistant Professor Department of Epidemiology and Public Health
February 11, 2004	Depression Among Surviving Caregivers: Does Length of Hospice Enrollment Matter?	Elizabeth Bradley, PhD Associate Professor Department of Epidemiology and Public Health
February 19, 2004	Recent Trends in Cancer Incidence and Mortality in Connecticut: From Surveillance to Study Questions	Helen Swede, PhD Epidemiologist, Connecticut Tumor Registry, Department of Public Health, State of Connecticut
March 17, 2004	Psychosocial Factors & Survival in African-American & White Cancer Patients	Hosanna Soler-Vila, PhD Department of Epidemiology and Public Health
March 23, 2004	Excerpts form Yale Cancer Genetic Counseling BRCA-Patient Documentary Part II	Ellen Matloff, MS Associate Research Scientist Department of Genetics, Director, YCC Cancer Genetic Counseling Shared Resource
May 18, 2004	HER2 in Breast Cancer: Influence on Biology, Novel Therapeutic Strategies	Michael P. DiGiovanna, MD, PhD Associate Professor of Medical Oncology, Co-Director Breast Cancer Research Program
June 29, 2004	Intraductal Approaches for Early Breast Cancer Detection, Risk Assessment, and Mammary Gland Biology	Bonnie L. King, PhD Associate Research Scientist, Department of Genetics, Yale University School of Medicine

Table 2: Pre and Post Doctoral Trainees by Years of Appointment and Research

Trainees Predoctoral	Years	Number of Months Supported	Dissertation Title/Research Study	Current Positions
Shiu-yu Lee	2000-2002	24	Treatment Decision-Making for the Primary Treatment of Early-Stage Breast Cancer in Chinese American Women	Assistant Professor, National Taipei College of Nursing, Taipei, Taiwan
Pamela Potter	2001-2003	24	Breast Biopsy and Distress: Testing a Reiki Intervention	Post-doctoral Fellowship, University of Washington
Yiyuan Sun	2002-2004	24	The Decision Making Process of Symptom Disclosure by Chinese American Women with Breast Symptom(s)	Trainee, Passed candidacy, Yale University School of Nursing (YSN)
Shan Liu	2003-2005	12	Functional Status of Women Receiving Breast Cancer Treatment	Trainee, Passed preliminary examination, YSN
Emily Haozous Post-Doctoral	July 1, 2004- June 30, 2005	0	Understanding the Cancer Pain Experience in Native Americans	Trainee, Passed preliminary examination, YSN
Donna Clemmens	2000-2002	24	The Meaning of Motherhood in Adolescents Whose Mothers have Breast Cancer	Assistant Professor, Division of Nursing, New York University
Dena Schulman- Green	2001-2002	20	Decision Making Communication and Care Transition Among Breast Cancer Patients	Research Scientist, YSN
Amy Kenefick	2002-2003	15	Relationship of Neurocognitive Function of Breast Cancer Treatment and Induced Menopause	Associate Professor, University of Connecticut, Storrs
Sheryl LaCourse	September, 2003- June, 2005	10	The Effects of an Internet-based Telehealth Information and Support Intervention on Breast Cancer Survivors	Trainee, YSN
Regina Cunningham	November, 2003 – October 2004	9	Breast Cancer Survivorship Rehabilitation	Trainee, YSN